

[54] GEAR PUMP, ESPECIALLY FOR MEDICAL PURPOSES

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[57] ABSTRACT

A gear pump (1) comprises a pump housing (2) in which two stationary journals (12,13) are disposed. On the journals (12,13) a driving pump wheel (7) and a driven pump wheel (8) are mounted. The driving pump wheel (7) in the example is integrally joined to a shaft (16) which is constructed as hollow shaft and on which a hub (24) with a magnet (11) is disposed as part of a magnetic coupling of the gear pump (1). With this construction a wear of the journals (12,13) in their bearing region in the pump housing (2) under the action of aggressive cleaning agents such as acetic acid is prevented because the journals (12 and 13) do not rotate in their bearings. On the other hand, by provision of the shaft (16) constructed as hollow shaft the drive connection is established between the driving pump wheel (7) and the magnet (11) forming part of the magnetic coupling, and wear of the shaft (16) rotating on the journal (12) is prevented by constructing said shaft from a particularly anti-frictional plastic which is also used for the pump wheels (7 and 8).

10 Claims, 5 Drawing Figures

